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IFITM1 Antibody(Center) Blocking peptide
Synthetic peptide
Catalog # BP19541c

Specification

IFITM1 Antibody(Center) Blocking peptide - Product Information

Primary Accession P13164

IFITM1 Antibody(Center) Blocking peptide - Additional Information

Gene ID 8519

Other Names
Interferon-induced transmembrane protein 1, Dispanin subfamily A member 2a, DSPA2a, Interferon-induced protein 17, Interferon-inducible protein 9-27, Leu-13 antigen, CD225, IFITM1, CD225, IFI17

Format
Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions
This product is for research use only. Not for use in diagnostic or therapeutic procedures.

IFITM1 Antibody(Center) Blocking peptide - Protein Information

Name IFITM1 (HGNC:5412)

Synonyms CD225, IFI17

Function
IFN-induced antiviral protein which inhibits the entry of viruses to the host cell cytoplasm, permitting endocytosis, but preventing subsequent viral fusion and release of viral contents into the cytosol. Active against multiple viruses, including influenza A virus, SARS coronaviruses (SARS-CoV and SARS-CoV-2), Marburg virus (MARV), Ebola virus (EBOV), Dengue virus (DNV), West Nile virus (WNV), human immunodeficiency virus type 1 (HIV-1) and hepatitis C virus (HCV) (PubMed:26354436, PubMed:33270927). Can inhibit: influenza virus hemagglutinin protein-mediated viral entry, MARV and EBOV GP1,2-mediated viral entry and SARS-CoV and SARS-CoV-2 S protein-mediated viral entry. Also implicated in cell adhesion and control of cell growth and migration (PubMed:33270927). Inhibits SARS-CoV-2 S protein- mediated syncytia formation (PubMed:33051876). Plays a key role in the antiproliferative action of IFN-gamma either by inhibiting the ERK activation or by

arresting cell growth in G1 phase in a p53-dependent manner. Acts as a positive regulator of osteoblast differentiation. In hepatocytes, IFITM proteins act in a coordinated manner to restrict HCV infection by targeting the endocytosed HCV virion for lysosomal degradation (PubMed:26354436). IFITM2 and IFITM3 display anti-HCV activity that may complement the anti-HCV activity of IFITM1 by inhibiting the late stages of HCV entry, possibly in a coordinated manner by trapping the virion in the endosomal pathway and targeting it for degradation at the lysosome (PubMed:26354436).

Cellular Location
Cell membrane; Single-pass membrane protein. Lysosome membrane

Tissue Location
Bone (at protein level). Levels greatly elevated in colon cancer, cervical cancer, esophageal cancer and ovarian cancer Expressed in glioma cell lines.

IFITM1 Antibody(Center) Blocking peptide - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Blocking Peptides

IFITM1 Antibody(Center) Blocking peptide - Images

IFITM1 Antibody(Center) Blocking peptide - Background

IFN-induced antiviral protein that mediate cellular innate immunity to at least three major human pathogens, namely influenza A H1N1 virus, West Nile virus, and dengue virus by inhibiting the early step(s) of replication. Plays a key role in the antiproliferative action of IFN-gamma either by inhibiting the ERK activition or by arresting cell growth in G1 phase in a p53-dependent manner. Implicated in the control of cell growth. Component of a multimeric complex involved in the transduction of antiproliferative and homotypic adhesion signals.

IFITM1 Antibody(Center) Blocking peptide - References

Ma, Y., et al. Oncol. Rep. 23(6):1569-1576(2010)Mosbruger, T.L., et al. J. Infect. Dis. 201(9):1371-1380(2010)Johnatty, S.E., et al. PLoS Genet. 6 (7), E1001016 (2010) :Pan, Z., et al. Neoplasma 57(2):123-128(2010)Brass, A.L., et al. Cell 139(7):1243-1254(2009)